There is a need for a method of accurately assaying the amount of nucleic acids in a biological source.

There is also a need for a method of accurately assaying HCV in a biological source.

There is a need for a method of simultaneously screening the effect of a plurality of compounds on the replication of a whole or part of a genome in a biological source.

There is also a need for a method of simultaneously screening the effect of a plurality of compounds on the replication of the whole or part of the HCV genome.

SUMMARY OF THE INVENTION

It is an object of the present invention to provide a method of accurately assaying the amount of nucleic acids in a biological source.

It is another object of the present invention to provide a method of accurately assaying HCV in a biological source.

It yet another object of the present invention to provide a method of simultaneously screening the effect of a plurality of compounds on the replication of a whole or part of a genome of a biological source.

It is yet another object of the present invention to provide a method of simultaneously screening the effect of

amplified. Quantitative PCR methods known in the art typically measure the amount of amplified product at the end of the amplification reaction. RT-PCR based assays, although sensitive, display poor reproducibility and are time consuming. For this reason, this technique is not suited for high throughput screening of a plurality of compounds. Moreover, inhibitors present in body fluids may inhibit the reaction, resulting in false or inaccurate determinations of low copy numbers. And, because the end product of the reaction is quantified, small errors in the amplification step can contribute to false results.

Another commercially available technique, namely, the Amplicor technology, does employ an internal control. But, the internal control therein is not amplified in the same tube as the sample being studied. Moreover, the internal control is unrelated to the HCV RNA moiety. As a result, any error in the extraction or amplification of the HCV virus is left unmonitored and/or uncorrected.

Thus, the above methods known in the art have one or more of the following drawbacks: (i) a lack of a proper internal control for evaluating the efficiency of viral RNA extraction and accuracy of the RT-PCR reaction (ii) a high level of variability, (iii) a limited range of detection due to endpoint rather than real-time detection, (iv) a lack of sensitivity, and (v) a low throughput assay, not suitable for quick screening of a plurality of compounds.